

HIDDEN ELEMENTS IN MUSIC AND SOUND

The musical heritage of the West, which we've been led to believe was sourced from the Greeks, owes a great debt to the ancient Sumerians, Babylonians and Egyptians.

by Adrian Wagner, CIROS © 1999

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One of the most difficult questions for a composer to answer is, "From where is the inspiration drawn to create a new work of music?" Given that the craft and grammar of music are already formulated in the minds of the musical establishment, what is there left that has never been in place before? The answer lies in one's perception of a complete formulation, and at what stage a learning curve can be considered terminated.

Blinkered by its own accepted traditions, the academic music establishment insists that the development of the "modal form" scale system commenced with the Greeks or Romans—a view similar to the insistence by fundamentalist churches that *Homo sapiens* was created precisely as stated in the Book of Genesis. We now know that the Darwinian and archaeological findings prove otherwise, but dogma has a habit of narrowing the mind. This follows from an understanding that if you repeat something often enough and it is not questioned strongly enough, it can become established as an apparent truth.

Fortunately, we have reached a time when we have the opportunity to examine ambiguous matters without having our lives threatened by some kind of Inquisition. We are able to debate these issues freely with people who have "eyes to see and ears to hear". Currently, our free-thinking Light Workers are able to expand upon these issues, and, liaising with others, many use the World Wide Web to support the questing endeavour in a profound way. Even the Vatican curators have begun using the Internet to publish information from their archives, although much still remains secreted at this stage. Many people see this as a long-awaited chance to confront and overturn the many schisms which exist between the different religions. This is only a start, but it is hoped that the new millennium will bring a welcome and open tolerance between the many Faiths on this planet. It will be interesting to see how the future monarch of Britain will deal with the prevailing controversial issue of defending The Faith, or Faiths, when the moment for decision arrives.

My chosen route into the quest for the connections to ancient music begins with examining the root stems of modal form. Scales and modes can be simply understood as the superstructure for melodic phrases. Modes are made up of arrangements of tones and semitones, without any necessary regard to the tonic or main note, so modal form is not governed by the system of major and minor keys that denotes music with a tonal design. The tonic of a scale is the first note of the scale; e.g., the tonic note of the scale of F minor is F. Tones, in this regard, are intervals of the major second or made up of two semitones.

In the Christian Church, plainchant was used to enhance the ritual in services, and ecclesiastical plainchant evolved from these root modes, as have the complete sets of minor and major scales we use in Western music today. As far back as the 4th-century era of Emperor Constantine, a solemn chant, the Introit, accompanied formal processions from the sacristy to the altar; the Offertory was sung in the Communion preparation; and, in the Communion itself, a chant accompanied the distribution of the bread and wine to the congregation. All this was, of course, sung originally in Latin.

Significantly, the Roman Mass became the most important form throughout Christendom, although, interestingly, embracing some Greek with the inclusion of the phrase *Kyrie eleison* ("Lord have mercy"). This chant was eventually succeeded by the hymn, *Gloria in excelsis Deo*. The Sanctus can be traced as far back as 3rd-century Alexandria, but the Agnus Dei was not introduced until the 7th century.

Early chant was always sung by men, because women were not allowed to participate in the churches—as detailed in my essay, "Feminine Element in Mankind" (see website www.mediaquest.co.uk/awfemel.html).

A problem arose in the 8th and 9th centuries, especially in the reign of Emperor Charlemagne, when an attempt was made to bring Roman-style church worship into the Frankish regions of Gaul. In this, Charlemagne saw himself as the divinely appointed ruler of the chosen people, similar perhaps to King David and his new Israel. This presented a considerable challenge to the Franks, who had tremendous difficulty in mastering the subtleties of Roman chant, while the Roman singers deliberately protected the secrets of their own skills. Consequently, confusion was created instead of harmony!

The eventual outcome of this, as some scholars would have us believe, was a quite different chant in the 13th century—a chant called "Gregorian". This is said to be a Byzantine imperial liturgy which emanated from the Pope's own chapel, as opposed to the various basilicas. But there is good reason to believe that this chant was actually Frankish, not Byzantine, and that it was intended to codify the oral repertory. Somewhat conveniently, however, it is claimed that the Frankish city of Metz (seemingly involved in the establishment of this musical model) "lost" all its chant books, and the only manuscripts surviving onwards from the late 9th century emanate from other places. The Frankish Empire was responsible for three musical genres: sequences, tropes (tones), and liturgical drama, which added local repertoires to the services for the patron saints of their churches.

A number of theoretical books about chant were written in the 9th century, and some of these attempted to reconcile the non-traditional chant with what survived of Greek musical theory. By the 12th century, the repertoire had become ever more complicated, and the Cistercian Order of monks reacted against this over-elaboration of ritual by excluding particular notes (tenths) from the wider range and eliminating the long meandering (melisma) of certain single words.

Since this period there have been occasional changes, including many of the mediaeval forms which re-appeared in the 18th and 19th centuries. Notational changes were apparent with the transition from a no-line stave to a four-line stave and, eventually, to the five-line stave that is familiar today. Expression markings to the chant notations also changed along with these, together with rhythmic stem indications, even as far back as the 13th century. However, the Old Roman system still contains a more primitive modal form than does Gregorian chant, and it is easy enough to discover the root stem modes.

The Greek names for the four main root modes or tropes are: Protus, Deuturus, Tritus and Tetradius, while out of these came others like the eight psalm tones of a Frankish innovation connected to the Byzantines. The eight modes are: Dorian (D), Hypodorian, Phrygian (E), Hypophrygian, Lydian (F), Hypolydian, Mixolydian (G) and Hypomixolydian. (To hear how these modes sound, play the white notes on a keyboard sequentially from a starting note; e.g., Dorian mode plays from D to the octave D, Phrygian plays from E to E, etc. The "Hypo-" modes contain the starting note aspect but with a slight cadence difference by implication of the fourth note beneath; e.g., Hypodorian starts on the note A beneath the main root of D, allowing for a rising cadence.)

Later, in the 16th century, four more modes were added: Aeolian (A), Hypoaeolian (E), Ionian (C) and Hypoionian (G).

Each mode contains a different sequence of half-tones and whole tones which make up a progression of notes similar to a scale. Interestingly, the Lydian mode contains the augmented 4th interval (B, the fourth note above the F starting note) that was so despised by the Roman Church and banned as "the Devil's interval" in the 12th century.

Other music of the mediaeval period was related to the aural tradition of European folk music, and from this derived the long-standing troubadour melodies.

Meanwhile, from ancient times, non-European cultures were developing their own modal systems, like the Arabic *mâqam* and the Indian *râga* systems.

Several aspects of moral and expressive values were attached to the various modes in the Middle Ages and some of these have bizarre stories attached to them. In one instance, a young man was so aroused by a melody in the Phrygian mode that he was about to break into the room of a young lady, when suddenly, a change to the Hypophrygian mode restored him to a proper frame of mind! Others of the mediaeval period related the eight modes to celestial bodies and to the masculine and feminine aspects.

Plato and Aristotle wrote about *harmoniai* which, interestingly, had the names Ionian, Lydian, Dorian and Phrygian—and each of

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these required a separate tuning of the lyre. Plato also praised Egyptian musical standards, and it would therefore be fair to assume that the association with modal form links the Greek and Roman systems. Within these modes were other tunings of the diatonic, chromatic and enharmonic forms, while along with the Greek modal forms came melodies and rhythms mainly associated with Greek lyric metres and poetry. This afforded Greek composers less freedom than their Roman successors in setting words to music.

The principal influence on Plato and Aristotle was Pythagoras (c. 550 BC), who investigated musical theory in Egypt before being instructed by the priests of Babylon in the secrets of arithmetic, music and other disciplines. Unfortunately, none of his writings remains and so we must rely on later sources to trace his work on the mathematics and acoustic geometry of music. His ideas, such as the Tetrad, the Golden Section and harmonic proportions, became applied to aesthetics and various mystical beliefs. Pythagoras is known for revealing the mathematical correspondence between the pitch of a note and the length of a string. However, there is much evidence that this relationship was known as far back as the early Babylonian and Sumerian eras.

Grecian thought is still unmistakable today in the belief that music influences ethical life, and in the idea that music can be explained in an abstract way as a reflection of some higher source. Pythagoreans believed in the principle of the "kinship of all beings".

As a result of his nexus with the god Apollo, Pythagoras believed that he was able to remember his earlier incarnations and, hence, to know more than others knew. He used music to teach the purification of the soul in order to reach higher levels. "To be like your Master" and so "to come nearer to the gods" was his challenge to his pupils. Salvation was thereby achieved through a union with the Divine Cosmos and the study of the cosmic order through the Music of the Spheres.

When we examine the music of ancient Mesopotamia and Egypt, we find that by the the end of the 4th millennium BC there was a defined musical structure of rhythmic and melodic tradition, developed under priestly ritual guidance.

There is much evidence from the texts that the Sumerian and Akkadian dynasties in the 3rd millennium BC made music a significant aspect of kingly and priestly ritual. In fact, they emphasised that the various musical instruments were "pleasing to the gods". As pointed out by Sir Laurence Gardner in his book, *Genesis of the Grail Kings*, the biblical Tubal-cain (who is revered in scientific Freemasonry) was the great Vulcan of Mesopotamia during the reign of Egypt's King Narmer (c. 3200 BC). He was a prominent alchemist and the greatest metallurgist of his age, while his step-brother Jubal was said to be "the ancestor of all who handle the lyre and pipe"—whence derived the word "jubilee", meaning "a blast of trumpets" or "to lead with triumph or pomp". The ritual connection in pleasing the gods with brass horns and trumpets is very apparent in this era, and a later association between angels and the mediaeval buisine (long trumpet) probably originates from this time.

Musical instruments played in the death-pit ritual of Ur (the capital of Sumer, c. 2600 BC) were nine lyres, three harps, sistrums or bell trees, frame drums (flat drums) in three different sizes, double pipes and silver pipes. There is evidence from this era that modal forms were definitely in use, and information gained from the many cartouches that show people singing and dancing with bells, rattles and cymbals.

By looking at the tuning of harps and lyres, we are directly able to ascertain the four main root modes used later in Greece and Rome. The mosaic Royal Standard of Ur shows a female singer, accompanied by a male playing a lyre with a soundbox in the shape of a bull. Animals were very much connected with various instruments, as in the jackal decorations on one of the Ur lyres, along with the "serpents" (long, curled trumpets) which were able to produce snake-like hissing sounds.

Some Egyptian texts have been discovered which, in the first half of the 2nd millennium BC, gave instructions for the tuning of a lyre, which implied the octave (as in later Greek and Roman systems) and were the basis of a tonal scaling. Associations with military music are shown in many cartouches and funeral tombs in Egypt. Tutankhamen was buried with two trumpets, while a relief from Sennacherib portrays a pair of trumpeters blowing alternately.

From the Sibylline Oracles, wherein prophecies concerning Jewish or Christian doctrines were allegedly confirmed by a sibyl (a legendary Greek prophetess), a song reads: "They do not pour blood on altars in libations of sacrifices; No drum sounds no cymbal; No flute of many holes which has a sound that damages the heart; No pipe which bears the imitation of the crooked serpent; No savage-sounding trumpet herald of wars; None who is drunk in lawless revels or dances; No sound of the lyre and no evil-working devices."

For a while in the Middle Ages, the bishops banned the use of brass instruments in churches because they were brash and produced what was perceived as "Devil tones" and "Satan's music". This proscription was intended to sever the link with all ancient, Old Testament

forms of worship ritual and its associated Egyptian ritual. However, it is interesting that, from the Reformation, secular music was almost totally dedicated to the use of brass instruments with composers like Purcell, Handel and Bach at the forefront of great choral and brass-dominated works. The fact is that, today, both Church and State ceremonies inherit their musical traditions from the priestly ritual and military pomp of the early time-frame.

Sacred ritual has always been linked to a transcendent realm, and many depictions of musical instruments are of double instruments, being perceivably one octave apart. This is very significant when considering the psycho-acoustic properties of sound. The interval shift of a perfect octave is exactly one-half or double the frequency. In ecclesiastical terminology, it is the seventh day (exactly a week) after a feast day, or eight days including the feast day and its octave.

Occasionally, however, strange acoustic phenomena occur when the octave is sounded imperfectly. In certain architectural and atmospheric circumstances, the imperfect octave (when the frequencies start to resonate against each other) produces lower or sub-harmonics, and these can fall far beneath our audio range.

Resonance is the vibration set up by contact with an object sympathetic to the frequency. For example, a tuning fork sounds far stronger if it is touching a table, with the energy transferred more powerfully through the air. However, the vibration of the fork will go on far longer, although less intensively, if it is free of any contact. It is also important to realise that, in the familiar scenario of the singer and the wine glass, it is not the power of the sound that is important; it is the vibrational "trill" of the singer, in a resonating frequency with the glass, which causes the glass to shatter.

The law of conservation of energy states that "you cannot get more energy from a sound source than you put in", and yet, with the subtle use of architecture and natural chambers, sound can be harnessed to project these psycho-acoustic properties. The sound of a particular instrument is derived from a tendency to reinforce particular harmonics so as to create what we understand as "tone colour", and this pitch region is know as a "formant".

Formants play a unique role in our speech, as each vowel sound can be characterised by way of containing two fixed formant regions. Extreme use of these may be found in the low chanting of Tibetan monks, as well as in the Hare Krishna chant and the *Om* chant. In fact, formants play a significant role in the strength or amplitude of a sound, and this explains how it is that a single flute is able to be heard amid a large string and brass section of an orchestra.



Many have studied the levitational potential of sound, and we have several accounts, with eyewitness evidence, of this elevating force. Indeed, levitation rituals are still being performed in India and Tibet.

In the village of Shivapur, near Poona, India, is a little mosque dedicated to the Sufi holy man Qamar Ali Dervish. Outside in the courtyard of the mosque is a stone weighing 138 pounds. During daily prayer, eleven devotees surround the stone, repeating the holy man's name. When they reach a certain pitch, the eleven men are able to lift the stone by using one finger each. When the chanting stops, the devotees jump back as the stone resumes its weight and falls to the ground with a heavy thud. The key seems to be in the chanting, and eleven voices must be the required formula to achieve the correct pitch to make the boulder's vibrations change and render it weightless, or at least much lighter.

Another fascinating eyewitness account of modern levitation comes from Tibet. It was reported by the Swedish aircraft industrialist, Henry Kjellson, who travelled through the Himalayas in the early 1930s. Kjellson described how Tibetan monks hauled stones, measuring 1.5 metres square, by yak up to a plateau and placed them in a specially designed bowl-shaped hollow, one metre in diameter and 15 centimetres deep at the centre. The hollow was situated 100 metres from a 400-metre cliff face, at the top of which was a temple that was being constructed.

Sixty-three metres behind the hollow stood nineteen musicians, and, behind them, 200 priests radiating out in lines, separated from one another in groups at five-degree intervals and forming a quarter-circle with the hollow at its focal centre. The distances appear to have been of the utmost importance, as all were carefully measured by the monks using lengths of knotted leather.

The musicians possessed a total of thirteen drums of three different sizes, while alternating between them were others with six large ragdan trumpets. The drums weighed up to 150 kilograms each and were barrel-shaped, suspended from wooden frames set horizontally and directed towards the hollow. The long metal trumpets, also directed towards the hollow, were of specific length, and it took two monks, taking turns, to blow one instrument.

On command, the drums and trumpets were sounded and the priests chanted in unison, together forming sharp blasts of sound. After four minutes, Kjellson observed that the individual stones placed in the target hollow began to wobble, moving from side to side, and that then, as the beats of sound increased, the stones soared 400 metres in a parabolic arc to the top of the cliff! Kjellson recorded that, by this means, the monks were able to elevate five or six blocks an hour.

A few years later, in 1939, a friend of Kjellson—a Swedish doctor called Dr Jarl, who was working for the Oxford Scientific Society in Egypt—was called into Tibet to treat a High Lama in this same region. While he was there he was permitted to shoot two films of this levitational ritual. However, the Oxford Scientific Society confiscated the films, declaring that, since Dr Jarl was in their employ when the films were shot, they were classified and not to be released. At present, the whereabouts of the films remains a mystery, but exhaustive searching by this author

and others is in progress.

In the music album *Genesis of the Grail Kings*, I have re-enacted the first four minutes of this levitation ritual on a track called "Phoenix and the Fire-stone", using the exact same format as described above. Several people have contacted me since the release of the CD, remarking that this track has occasionally caused certain phenomena to occur. One report told of the music returning even after the CD player had been turned off, while others have described objects being moved around the room. However, as yet, no one has made any report of their stereo system floating out of the window!

Preliminary findings to this point in the research have led me to look more closely into frequency and resonance. The resonant frequency of our skulls is around 3.5 hertz, and this coincides with the 14th sub-harmonic of G above middle C, which is the main frequency used in "Phoenix and the Fire-stone". This is the frequency directly connected to the pineal gland, and is therefore linked to the transcendent realm and the expansion of the subconscious.

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Recent research has been accomplished into sound, as a part of the IRCAM project in Paris. This is an electronic music research establishment (part of the Georges Pompidou Centre), founded in the 1980s with substantial grant-aid from the French Government.

Unfortunately, much of this French funding was originally associated with the exploration into the military potential of sound warfare, under cover of the cultural project in the studio complex. There are certain rooms which are still "out of bounds" today, even to the composers working permanently

within the centre.

So far, none of the acoustic research of modern times has produced any definitive sign of the levitational ability known to the Tibetans and others. But the research continues, for there is no reason why we should not acknowledge the Tibetan acquisition of knowledge from ancient Egypt and Mesopotamia. Until the Chinese takeover, Tibet had been isolated for millennia and this knowledge may well have been intentionally provided to the monks.

Purposeful architecture has always played a significant part in the constructions that surround spaces where music is played. In France, Chartres Cathedral (built in less than thirty years during the 13th century when high Gothic architecture was at its purest) is one of the most wondrous structures in this regard. In the centre of the floor of the nave is the famous labyrinth, which has long been connected with certain musical harmonics, set within an architectural framework of the Cathedral's walls and flying buttresses.

In *Genesis of the Grail Kings*, Sir Laurence Gardner describes the exotic anti-gravitational properties of the white powder of gold and other orbitally rearranged monatomic elements (ORMEs). Our collective work in this field has led us to postulate on the potential of the three combined forces—the single-atom powder, acoustics and architecture—and that, without this triple and holistic conjunction to facilitate an interdimensional state

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known as the Plane of Sharon, the super-conductive forces inherent in levitation may not be possible.

We do not know at this stage whether the Tibetan stones contained a monatomic substance, but the possible use of such a substance is becoming apparent when we consider other architectural structures around the world—such as the pyramids of Egypt and temples of the Inca—which have special acoustic properties. The results of this collaborative research will be included in further books and music.

Meanwhile, the sources of modal forms and sounds and the development of a new understanding of harmonic progression (which I have termed "modes of extended transposition") are inherent in the music I have created in *Holy Spirit and the Holy Grail* and *Genesis of the Grail Kings*.

I began this essay by confirming that we are currently able to examine many hitherto hidden elements in sound and music. We now have the opportunity to go behind the veil of these unique elements—elements that are not lost, but hidden away somewhere in our subconscious genetic

memory—and to reaffirm their value in today's environment.

Our Earth's fuel resources are beginning to expire, and we must embrace other forms of energy if we are to allow any of our benign technology to be of use in the future. Unfortunately, the present payback for our non-ecological use of technology is that it is doing us more harm than good in the longer term. But this does not have to be the case—certainly not, if we can comprehend and reutilise the resources that were available in ancient times.

How heartening it is to learn that some of our most advanced scientists are now realising that the previously perceived "vacuum" of space is actually filled with what they term "exotic matter", and that some of this vibrational and resonant energy is available for our beneficial use on this planet.

About the Author:

Born in 1952, composer and music producer Adrian Wagner had a music-oriented education, studying musical composition and orchestration before beginning his professional career at the age of twenty. Since the early 1970s, he has worked in music record-

ing and production and with rock musicians and bands, invented the Wasp (the world's first battery-powered, portable digital synthesiser), has written scores for films, animations, TV documentaries and commercials, and released a number of albums of his own music, including *Merak*, *Inca Gold*, *Karming the Elements* and *Ambient Collection*.

In the 1980s he started his own music enterprise, The Music Suite, facilitating album production for many artists and groups as well as his own projects, reflections of his Celtic origins. His new company, MediaQuest, is a multimedia sound-service company and CD production studio. Maintaining his film company connections, in 1999 he composed the music for a new TV documentary on the life of Jimi Hendrix.

In recent times, Adrian Wagner has been working closely with Sir Laurence Gardner and has composed, recorded and released companion musical suites to his books: *Holy Spirit and the Holy Grail* and *Genesis of the Grail Kings*. His current projects include a new musical work, entitled *Anunnaki*, and the music CDs for Laurence Gardner's book cycle. Adrian Wagner was recently appointed Chevalier of the Imperial and Royal Order of the Swan (CIROS). Chevalier Wagner is the great-great grandson of 19th-century Grail opera composer Richard Wagner, himself made a CIROS by Ludwig II of Bavaria.